REMARKS

Reexamination and reconsideration of the application as amended are requested. Support for amended claims 9 and 12 is found in paragraph [0034] of the specification.

The examiner's rejection of claims 9-10, 12-15 and 18 as anticipated, under 35 U.S.C. 102, is respectfully traversed. The examiner rejects these claims as being unpatentable over Freundlich (US 6,618,620). Claim 10 depends from claim 9, and claims 13-15 and 18 depend from claim 12.

Amended claim 9 now requires ultrasound at a first ultrasound acoustic power density to begin to thermally ablate a tissue ablation depth of an area of patient tissue and requires reducing the ultrasound to a lower second ultrasound acoustic power density, based on receiving an indication of an onset in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect, to complete the thermal ablation of the tissue ablation depth of the same area of the patient tissue. As described in paragraph [0034] of the specification for a second experiment having a one minute treatment time, wherein the first ultrasound acoustic power density was 84 watts per square centimeter, the onset of the ultrasound-attenuating effect occurred at 35 seconds, and the second ultrasound acoustic power density was 55 watts per square centimeter for the remainder of the one minute treatment, the tissue ablation depth was about 18 millimeters. Compare that to a tissue ablation depth of about 11 millimeters for an ultrasound acoustic power density kept constant at 84 watts per square centimeter throughout a one minute treatment as described in paragraph [0033] of the specification for a first experiment. The second experiment had an increased treatment depth for less total thermal energy compared to the first experiment.

Freundlich in figure 2, column 9, lines 25-34 and column 10, lines 6-10 discloses a planner 108. The planner 108 does uses an imager 114 to predict the lesion size (see column 9, lines 6-9 and column 8, lines 36-39). The planner 108 operates in an open loop mode in that it predicts a maximal temperature using a particular planned power and if the predicted maximal

temperature exceeds an allowed limit, then the planner 108 scales down the planned power until the predicted maximal temperature is within the allowable limit. In this open loop mode, the planner 108 tells the controller 108 to use the planned power to treat a particular tissue area of the patient, wherein during the treatment time, the power is not changed.

Freundlich in figure 5 and column 10, lines 11-58 discloses the same planner 108 but the planner 108 is now being used in a feedback mode. The planner 108 will adjust its planning based on the feedback imager 502. The only adjustment in planning by the planner 108, based on using the feedback imager 502, which is taught, suggested or described in Freundlich is to adjust the treatment plan by adding treatment sites, removing treatment sites, or continuing to the next treatment site, or adjusting the thermal dose properties of some or all of the remaining treatment sites (see column 10, lines 53-58 and column 12, lines 6-27). Freundlich does not teach, suggest or describe using ultrasound at a first ultrasound acoustic power density to begin to thermally ablate a tissue ablation depth of an area of patient tissue and reducing the ultrasound to a lower second ultrasound acoustic power density, based on receiving an indication of an onset in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect, to complete the thermal ablation of the tissue ablation depth of the same area of the patient tissue, as required by applicants' claim 9. Freundlich only describes re-planning a second site based on feedback involving treatment of a first site. Freundlich does not describe changing plans during the treatment of the same site.

Amended claim 12 now requires ultrasound at a first setting of a control parameter to begin to thermally ablate a tissue ablation depth of an area of patient tissue and requires ultrasound at a second setting of the control parameter, based on receiving an indication of an onset in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect, to complete the thermal ablation of the tissue ablation depth of the same area of the patient tissue. Applicants' remarks concerning the patentability of claim 9 over Freundlich are equally applicable to claim 12 and are herein incorporated by reference.

The examiner's rejection of claims 16-17 and 19 as obvious, under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Freundlich

'620 in view of Itoh (US 4,757,820). Claims 16-17 and 19 depend from claim 12, and applicants' previous remarks concerning the patentability of claim 12 over Freundlich are herein incorporated by reference.

The examiner's rejection of claims 11 and 20 as obvious, under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Freundlich '620 in view of Ying (US 5,657,760). Claim 11 depends from claim 9, claim 20 depends from claim 12, and applicants' previous remarks concerning the patentability of claims 9 and 12 over Freundlich are herein incorporated by reference. The examiner cites column 14, lines 52-67 in Ying as teaching using ultrasound to detect hyperechogenicity (scatter) to monitor ablation progress. Applicants respectfully disagree. Column 14, lines 52-67 of Ying uses ultrasound to detect hyperechogenicity (scatter) and states this could be used to predict lesion severity. There in nothing in Freundlich and/or Ying which teaches, suggests or describes using the inception of a proximal hyperechoic region of the patient tissue with distal ultrasound attenuation as an indication of an occurrence in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect as required by applicants' claims 11 and 20.

Inasmuch as each of the rejections has been answered by the above remarks and amended claims, it is respectfully requested that the rejections be withdrawn, and that this application be passed to issue.

Respectfully submitted,

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